

REMARKS/ARGUMENTS

The Present Invention

The present invention is directed to methods of promoting the regression of a cancer in a mammal.

The Pending Claims

Claims 1-40 are pending.

Examiner Interview

Applicants wish to thank Examiner Belyavskiy for the telephonic interview of May 24, 2007. During the interview, the substance of the restriction requirement was discussed. Also, it was pointed out to the Office that WO 97/05239 (hereinafter the '239 application) was neither cited in the Form 1449 nor in the International Search Report of the parent PCT application, such that the '239 application should have been cited in a Notice of Cited References Form (PTO Form 892). No agreement was reached.

Discussion of the Restriction Requirement

In reply to the Office Action mailed May 1, 2007, in the referenced patent application, Applicants respectfully traverse the restriction requirement for the reasons set forth below.

As a first matter, because the instant application is a national stage application under 35 USC 371, the inclusion of more than one invention is permitted if all inventions are so linked as to form a single general inventive concept (MPEP § 1893.03(d)). Unity of invention exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. "Special technical features," as defined by PCT Rule 13.2, refers to those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art.

In the instant case, the special technical feature of the invention of claims 1 to 40 is a method of promoting the regression of a cancer in a mammal comprising (i) administering to the mammal nonmyeloablative lymphodepleting chemotherapy and (ii) subsequently administering autologous T cells as further described by the claims. As such, groups I to III should be examined together.

The Office Action contends that there is no special technical feature that defines a contribution over the prior art, since the '239 application allegedly teaches a method of promoting the regression of a cancer in a mammal comprising administering nonmyeloablative lymphodepleting chemotherapy and further administering autologous T cells. However, the '239 application does not appear to disclose such a method comprising the administration of nonmyeloablative lymphodepleting chemotherapy, let alone a method comprising the administration of nonmyeloablative lymphodepleting chemotherapy before the administration of autologous T cells. The Office is requested to point out where in the '239 application such teachings to nonmyeloablative lymphodepleting chemotherapy as part of a method of promoting the regression of a cancer in a mammal are found.

In view of the foregoing, the claims of the instant application are linked by a single inventive concept that is not disclosed by the prior art.

As a second matter, the restriction requirement is improper, because the Office has distinguished the groups of inventions divided the subject matter of each of the pending claims as follows:

Group I (claims 1-17) as allegedly directed to "a method of promoting the regression of a cancer in a mammal comprising administering nonmyeloablative lymphodepleting chemotherapy;"

Group II (claims 18-22) as allegedly directed to "a method of promoting the regression of a metastatic melanoma comprising intravenously administering around 60 mg/kg of cyclophosphamide;" and

Group III (claims 23-40) as allegedly directed to “a method of promoting the regression of a metastatic melanoma comprising administering autologous T cells which have been previously selected for highly avid recognition of an antigen of the cancer.”

All of the pending claims are directed to a method of promoting the regression of a cancer, e.g., metastatic melanoma, in a mammal comprising administering nonmyeloablative lymphodepleting chemotherapy. See (i) of claims 17 and 23. With regard to claims 18 to 22, the nonmyeloablative lymphodepleting chemotherapy is the recited “around 60 mg/kg of cyclophosphamide followed by around 25 mg/m² fludarabine for five days.” Also, all of the pending claims comprise administering autologous T cells which have been previously selected for highly avid recognition of an antigen of the cancer. See lines 1 and 2 of (a) and (b) of claims 1 and 23. With respect to claims 18 to 22, the cancer antigen is specified as MART-1. In view of the foregoing, the restriction between Groups I to III is additionally improper.

It is further noted that claim 23 recites “[a] method of promoting the regression of a cancer in a mammal” and not “metastatic melanoma” as alleged by the Office.

Moreover, examination of the patent application would be most expeditious by examining all pending claims together. As Section 803 of the MPEP requires,

If the search and examination of all the claims in an application can be made without serious burden, the Examiner must examine them on the merits, even though they include claims to independent or distinct inventions.

In the case at hand, the Office has failed to meet the criteria for a proper restriction requirement by not even so much as asserting that there would be a serious burden on the Examiner if restriction were not required.

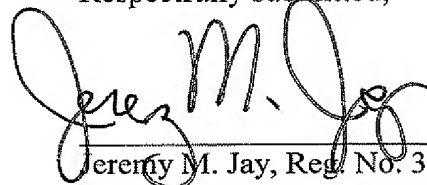
However, to comply with the requirements of the Patent and Trademark Office, Applicants provisionally elect, *with traverse*, Group III (claims 23 to 40) directed to a method of promoting the regression of a cancer in a mammal, which method comprises: (i) administering to the mammal nonmyeloablative lymphodepleting chemotherapy, and (ii) subsequently administering: (a) autologous T-cells, which have been previously isolated, selected for highly avid recognition of an antigen of the cancer, the regression of which is to

be promoted, by stimulation of the T-cells *in vitro* with the antigen of the cancer, and, optionally, rapidly expanded *in vitro* at least once by further stimulation with the antigen of the cancer, and, either concomitantly with the autologous T-cells or subsequently to the autologous T-cells, by the same route or a different route, a T-cell growth factor that promotes the growth and activation of the autologous T-cells, or (b) autologous T-cells, which have been previously isolated, selected for highly avid recognition of an antigen of the cancer, the regression of which is to be promoted, by stimulation of the T-cells *in vitro* with the antigen of the cancer, modified to express a T-cell growth factor that promotes the growth and activation of the autologous T-cells, and, optionally, rapidly expanded *in vitro* at least once by further stimulation with the antigen of the cancer, whereupon the regression of the cancer in the mammal is promoted.

Conclusion

Applicants respectfully request withdrawal of the restriction requirement. If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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